

upper run of conveyor 50 and then transferred thereby over the upper run 2a of the main conveyor 2 to provide a breading coating on the top and sides of the food product passing therebelow on said upper conveyor run 2a.

The bread crumb on the bottom run 2b of said conveyor 2 which passes underneath the gate 14 is carried by said conveyor 2 and onto the upper run 2a to provide a bottom layer of bread crumb upon which the food product P is deposited at the feed-in end E of the machine.

As will be understood, by adjusting the position of gate 14, the amount of bread crumb provided for each of the bottom and top and side coatings of the food product may be selected.

As viewed in FIG. 7, a somewhat lightweight roller 155 may be rotatably supported within the side walls of the frame downstream and over the conveyor 2 from the hopper unit 45 which engages the food product P with a slight pressure and thereby presses the product into firm engagement with the bread crumb on the upper conveyor run 2a and to thereby provide for a high quality of bread crumb coating thereon.

The bread crumb may be replenished by the operator by depositing new breading into the bin 62 which is then transported by conveyor 64 into the housing 46 of hopper unit 45.

Having described a preferred embodiment of the breading machine incorporating the present invention, it will be realized that the same is susceptible to various modifications and arrangements of parts without departing from the inventive concept thereof as is defined in the claims:

I claim:

1. A breading machine for depositing fresh or green bread crumbs onto a food product comprising an elongated frame (1), an endless pervious conveyor belt (2) supported in said frame and extending therealong to define an upper conveyor run (2a) providing a product conveyance path and a lower conveyance run (2b), drive means (5, 90, 97, 98) for moving said upper conveyor along said conveyance path in a first direction and to move said lower conveyor run in the opposite direction, hopper means (45) comprising a housing (46) supported in said frame (1) above said upper conveyor run (2a), a first conveyor means (47) in said hopper means, drive means (130, 141, 144) for moving said first conveyor means, a circular conveyor (25) rotatably supported on said frame adjacent to said hopper means (45) and the bottom conveyor run (2b) of said first named conveyor belt, a plurality of pocket means (33) formed on said circular conveyor and opening to the center thereof, one end of said first conveyor means extending into the circular conveyor (25), auger means (70) rotatably supported in said frame and extending transversely thereacross above and in close proximity to the bottom conveyor run (2a) of said first named conveyor belt (2) and having one end extending into said circular conveyor (25), drive means (71, 90, 98) connected to said auger means being actuatable to rotate said auger means and remove a portion of bread crumbs from the bottom conveyor run, said auger means being rotatable to transfer said removed bread crumbs to said circular conveyor, said auger means having an opening at said circular conveyor whereby said removed bread crumbs fall into the pocket means as the same is positioned below said opening, means for rotatably driving

(90, 92, 94, 115) said circular conveyor, the continued rotation of said circular conveyor positioning each said pocket means successively to a discharge position ( $p^1$ ,  $p^2$ ) whereat the bread crumbs therein are free to fall out thereof, said first conveyor means (47) in said hopper means having one end supported in said frame at said discharge position whereby said bread crumbs fall out of said pocket means and onto said one end of said first conveyor means, said drive means (130, 141, 144) for actuating said first conveyor means being operable to carry the bread crumbs thereon and to deposit the same into said hopper means, and said bread crumbs thereafter exiting from said hopper means and onto the food product being carried on said upper conveyor run of said first named conveyor as the same is carried therebelow.

2. A breading machine as defined in claim 1 and wherein a second hopper means (62) is disposed in said frame and positioned to deposit bread crumbs into the first named hopper means (45).

3. A breading machine as defined in claim 2 and wherein conveyor means (64) are disposed in the second hopper means (62) and means (120, 122, 118, 128) to drive said conveyor means to transfer bread crumbs from said second hopper means (62) into said first named hopper means.

4. A breading machine as defined in claim 1 and wherein the first conveyor means comprises at least one endless conveyor belt positioned (47a, 47b) to receive bread crumbs falling out of the pocket means at said discharge position.

5. A breading machine as defined in claim 4 and wherein the first conveyor means comprises a pair of endless conveyor belts (47a, 47b) each positioned to receive bread crumbs falling out of the pocket means at said discharge position ( $p^1$ ,  $p^2$ ), and means for driving (130, 141, 144) said pair of conveyor belts to deposit said bread crumbs thereon into said hopper means.

6. A breading machine as defined in claim 1 and wherein means (39) are provided to retain bread crumbs in certain of the pocket means (33) of the circular conveyor as said conveyor is rotated.

7. A breading machine as defined in claim 1 and wherein the pocket means (33) are in equal radial speed relation to each other about the axis (26) of said circular conveyor.

8. A breading machine as defined in claim 1 and wherein their conveyor means (50) supported in said frame between the hopper means (45) and the upper run (2a) of the first named conveyor means (2) is in position to receive the bread crumbs exiting from said hopper means, and means to actuate (101, 113, 115) said third conveyor means effective to deposit said exiting bread crumbs onto the food product passing therebelow.

9. A breading machine as defined in claim 8 and wherein the third conveyor means comprises at least one endless conveyor belt (50), and drive means for said conveyor belt for actuating (101, 113, 115) the same and to deposit the exiting bread crumbs from the hopper means onto the food product passing therebelow.

10. A breading machine as defined in either one of claims 5 and 8 and wherein the pair of endless conveyor belts (47a, 47b) are positioned in said hopper means (45) so as to deposit the bread crumbs onto the third conveyor means (50) into overlapping piles.

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